

SEQUENCE LISTING

<110> Ribozyme Pharmaceuticals, Inc
 Usman, Nassim
 McSwiggen, Jim
 Zinnen, Shawn
 Seiwert, Scott
 Haeberli, Pete
 Chowrira, Bharat
 Blatt, Larry

<120> Nucleic Acid Sensor Molecules

<130> MBHB00-816-E (700/005)

<160> 63

<170> PatentIn version 3.0

<210> 1

<211> 15

<212> RNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Reporter Sequence

<400> 1

aagcacuaau ggaga

15

<210> 2

<211> 15

<212> RNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Reporter Sequence

<400> 2

aagcacuaac aguaa

15

<210> 3

<211> 37

<212> RNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Sensor Sequence

<400> 3

ucuccaucug augaggccgu uaggccgaaa gugcuug

37

<210> 4

<211> 43

20060101 10:05:01

<212> RNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic Sensor Sequence

 <400> 4
 ucuccaucug augaggccgu uaggccgaaa gugcuugcga gug 43

 <210> 5
 <211> 43
 <212> RNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic Sensor Sequence

 <400> 5
 uuacugucug augaggccgu uaggccgaaa gugcuugcga gug 43

 <210> 6
 <211> 25
 <212> RNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic Sensor Component

 <220>
 <221> misc_feature
 <222> (1)..(25)
 <223> 2'-O-Methyl

 <400> 6
 caagcacuuu cucaucagau ggaga 25

 <210> 7
 <211> 31
 <212> RNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic Sensor Component

 <220>
 <221> misc_feature
 <222> (1)..(31)
 <223> 2'-O-Methyl

 <400> 7
 cacucgcaag cacuuucuca ucagauggag a 31

 <210> 8

<211> 26
 <212> RNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic Sensor Component

 <220>
 <221> misc_feature
 <222> (1)..(26)
 <223> 2'-O-Methyl

 <400> 8
 cacucgcaag caccuauca ggcagua 26

<210> 9
 <211> 28
 <212> RNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic Sensor Component

 <220>
 <221> misc_feature
 <222> (1)..(28)
 <223> 2'-O-Methyl

 <400> 9
 cacucgcaag caccuauca gguggaga 28

<210> 10
 <211> 27
 <212> RNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic Target Signaling

 <400> 10
 uacugccuga uaggugcuu ggcagug 27

<210> 11
 <211> 15
 <212> RNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Generic Target Sequence

 <220>
 <221> misc_feature
 <222> (1)..(6)
 <223> n stands for any nucleotide

<220>
 <221> misc_feature
 <222> (9)..(15)
 <223> n stands for any nucleotide

<400> 11
 nnnnnnnuhnn nnnnn

15

<210> 12
 <211> 36
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Enzymatic Nucleic Acid

<220>
 <221> misc_feature
 <222> (1)..(7)
 <223> n stands for any nucleotide

<220>
 <221> misc_feature
 <222> (16)..(18)
 <223> n stands for any nucleotide

<220>
 <221> misc_feature
 <222> (23)..(25)
 <223> n stands for any nucleotide

<220>
 <221> misc_feature
 <222> (31)..(36)
 <223> n stands for any nucleotide

<220>
 <221> misc_feature
 <222> (1)..(8)
 <223> 2'-O-Methyl

<220>
 <221> misc_feature
 <222> (12)..(12)
 <223> 2'-O-Methyl

<220>
 <221> misc_feature
 <222> (14)..(26)
 <223> 2'-O-Methyl

<220>
 <221> misc_feature
 <222> (28)..(29)
 <223> 2'-O-Methyl

<220>
 <221> misc_feature
 <222> (31)..(36)
 <223> 2'-O-Methyl

<220>
 <221> misc_feature
 <222> (9)..(9)
 <223> 2'-deoxy-2'-C-Allyl

<400> 12
 nnnnnnncug augagnnnga aannncgaaa nnnnnn

36

<210> 13
 <211> 14
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Generic Target Sequence

<220>
 <221> misc_feature
 <222> (1)..(5)
 <223> n stands for any nucleotide

<220>
 <221> misc_feature
 <222> (8)..(14)
 <223> n stands for any nucleotide

<400> 13
 nnnnnchnnn nnnn

14

<210> 14
 <211> 35
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Enzymatic Nucleic Acid

<220>
 <221> misc_feature
 <222> (1)..(7)
 <223> n stands for any nucleotide

<220>
 <221> misc_feature
 <222> (16)..(18)
 <223> n stands for any nucleotide

<220>
 <221> misc_feature

<222> (23)..(25)
<223> n stands for any nucleotide

<220>
<221> misc_feature
<222> (31)..(35)
<223> n stands for any nucleotide

<220>
<221> misc_feature
<222> (1)..(8)
<223> 2'-O-Methyl

<220>
<221> misc_feature
<222> (12)..(12)
<223> 2'-O-Methyl

<220>
<221> misc_feature
<222> (14)..(26)
<223> 2'-O-Methyl

<220>
<221> misc_feature
<222> (28)..(29)
<223> 2'-O-Methyl

<220>
<221> misc_feature
<222> (31)..(35)
<223> 2'-O-Methyl

<220>
<221> misc_feature
<222> (30)..(30)
<223> n stands for Inosine

<220>
<221> misc_feature
<222> (9)..(9)
<223> 2'-deoxy-2'-C-Allyl

<400> 14
nnnnnnncug augagnnnga aannnncgaan nnnnn

35

<210> 15
<211> 15
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Generic Target Sequence

<220>
<221> misc_feature

<222> (1)..(6)
<223> n stands for any nucleotide

<220>
<221> misc_feature
<222> (9)..(15)
<223> n stands for any nucleotide

<400> 15
nnnnnnnygnn nnnnn

15

<210> 16
<211> 35
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Enzymatic Nucleic Acid Motif

<220>
<221> misc_feature
<222> (1)..(7)
<223> n stands for any nucleotide

<220>
<221> misc_feature
<222> (29)..(35)
<223> n stands for any nucleotide

<220>
<221> misc_feature
<222> (1)..(8)
<223> 2'-O-Methyl

<220>
<221> misc_feature
<222> (13)..(16)
<223> 2'-O-Methyl

<220>
<221> misc_feature
<222> (18)..(35)
<223> 2'-O-Methyl

<220>
<221> misc_feature
<222> (11)..(11)
<223> Phosphorothioate 3'-Internucleotide Linkage

<400> 16
nnnnnnnuga uggcaugcac uaugcgcgnn nnnnn

35

<210> 17
<211> 48
<212> RNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Enzymatic Nucleic Acid Motif

<220>

<221> misc_feature

<222> (1)..(8)

<223> 2'-O-Methyl

<220>

<221> misc_feature

<222> (12)..(21)

<223> 2'-O-Methyl

<220>

<221> misc_feature

<222> (32)..(37)

<223> 2'-O-Methyl

<220>

<221> misc_feature

<222> (44)..(48)

<223> 2'-O-Methyl

<220>

<221> misc_feature

<222> (9)..(10)

<223> 2'-deoxy-2'-amino

<220>

<221> misc_feature

<222> (22)..(26)

<223> 2'-deoxy-2'-amino

<220>

<221> misc_feature

<222> (38)..(40)

<223> 2'-deoxy-2'-amino

<400> 17

gugugcaacc ggaggaacu ccucaagg acgaaagucc gggacggg

48

<210> 18

<211> 16

<212> RNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Target sequence for SEQ ID NO 17

<400> 18

gccguggguu gcacac

16

<210> 19

<211> 36
 <212> RNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Enzymatic Nucleic Acid Motif

 <220>
 <221> misc_feature
 <222> (1)..(7)
 <223> 2'-O-Methyl

 <220>
 <221> misc_feature
 <222> (36)..(36)
 <223> 3'-3' inverted abasic moiety

 <220>
 <221> misc_feature
 <222> (9)..(15)
 <223> 2'-O-Methyl

 <220>
 <221> misc_feature
 <222> (19)..(19)
 <223> 2'-O-Methyl

 <220>
 <221> misc_feature
 <222> (21)..(21)
 <223> 2'-O-Methyl

 <220>
 <221> misc_feature
 <222> (23)..(23)
 <223> 2'-O-Methyl

 <220>
 <221> misc_feature
 <222> (26)..(26)
 <223> 2'-O-Methyl

 <220>
 <221> misc_feature
 <222> (28)..(35)
 <223> 2'-O-Methyl

 <220>
 <221> misc_feature
 <222> (1)..(4)
 <223> Phosphorothioate 3'-Internucleotide Linkage

 <220>
 <221> misc_feature
 <222> (17)..(17)
 <223> 2'-Deoxy-2'-Amino

<220>
 <221> misc_feature
 <222> (27)..(27)
 <223> 2'-Deoxy-2'-Amino

<400> 19
 gugccuggcc gaaaggcgag ugaggucugc cgcgcn

36

<210> 20
 <211> 15
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Target sequence for SEQ ID NO 19

<400> 20
 gcgcggcgca ggcac

15

<210> 21
 <211> 16
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Enzymatic Nucleic Acid Motif

<400> 21
 rggctagcta caacga

16

<210> 22
 <211> 12
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Generic Reporter Molecule

<220>
 <221> misc_feature
 <222> (1)..(5)
 <223> n stands for any nucleotide

<220>
 <221> misc_feature
 <222> (8)..(12)
 <223> n stands for any nucleotide

<400> 22
 nnnnnygnnn nn

12

<210> 23
 <211> 35

```

<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Sensor Molecule Motif

<220>
<221> misc_feature
<222> (1)..(6)
<223> n stands for any nucleotide

<220>
<221> misc_feature
<222> (8)..(17)
<223> n stands for any nucleotide

<220>
<221> misc_feature
<222> (31)..(35)
<223> n stands for any nucleotide

<400> 23
nnnnnngnnn nnnnnnnncga gugaggucur nnnnn
35

<210> 24
<211> 23
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Sensor Molecule Motif

<220>
<221> misc_feature
<222> (1)..(5)
<223> n stands for any nucleotide

<220>
<221> misc_feature
<222> (19)..(23)
<223> n stands for any nucleotide

<400> 24
nnnnncgagu gaggucurnn nnn
23

<210> 25
<211> 11
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Target Signaling

<220>
<221> misc_feature

```

<222> (1)..(4)
<223> n stands for any nucleotide

<220>
<221> misc_feature
<222> (7)..(11)
<223> n stands for any nucleotide

<400> 25
nnnnrgnnnn n 11

<210> 26
<211> 21
<212> RNA
<213> Hepatitis C Virus

<400> 26
gguccuuucu uggauaaacc c 21

<210> 27
<211> 42
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Sensor/Reporter Molecule

<220>
<221> misc_feature
<222> (22)..(35)
<223> n stands for any nucleotide

<400> 27
ggguuuauca agugaggucu rnnnnnnnnnn nnnnnygcaa ga 42

<210> 28
<211> 54
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Sensor Molecule

<220>
<221> misc_feature
<222> (1)..(6)
<223> n stands for any nucleotide

<220>
<221> misc_feature
<222> (50)..(54)
<223> n stands for any nucleotide

<400> 28

nnnnnnngagc cgaguagcgu ugggucgcga aaggcucgag ugaggucurn nnnn

54

<210> 29
<211> 72
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Sensor Molecule

<220>
<221> misc_feature
<222> (1)..(6)
<223> n stands for any nucleotide

<220>
<221> misc_feature
<222> (8)..(16)
<223> n stands for any nucleotide

<220>
<221> misc_feature
<222> (46)..(54)
<223> n stands for any nucleotide

<220>
<221> misc_feature
<222> (68)..(72)
<223> n stands for any nucleotide

<400> 29
nnnnnnngnnn nnnnnnagcc gaguagcguu gggucgcgaa aggcunnnnn nnnncgagug 60
aggucurnnn nn 72

<210> 30
<211> 39
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Sensor Molecule

<220>
<221> misc_feature
<222> (1)..(6)
<223> n stands for any nucleotide

<220>
<221> misc_feature
<222> (8)..(17)
<223> n stands for any nucleotide

<220>
<221> misc_feature

<222> (31)..(39)
<223> n stands for any nucleotide

<400> 30
nnnnnnngnnn nnnnnnnncca gugaggucur nnnnnnnnn

39

<210> 31
<211> 10
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Generic Target Molecule

<220>
<221> misc_feature
<222> (1)..(6)
<223> n stands for any nucleotide

<220>
<221> misc_feature
<222> (8)..(10)
<223> n stands for any nucleotide

<400> 31
nnnnnnngnnn

10

<210> 32
<211> 39
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Reporter/Sensor Molecule

<220>
<221> misc_feature
<222> (1)..(5)
<223> n stands for any nucleotide

<220>
<221> misc_feature
<222> (19)..(32)
<223> n stands for any nucleotide

<220>
<221> misc_feature
<222> (35)..(39)
<223> n stands for any nucleotide

<400> 32
nnnnnccgagu gaggucurnn nnnnnnnnnnn nnygnnnnn

39

<210> 33

<211> 34
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic Reporter/Sensor Molecule

<220>
 <221> misc_feature
 <222> (1)..(5)
 <223> n stands for any nucleotide

<220>
 <221> misc_feature
 <222> (19)..(32)
 <223> n stands for any nucleotide

<400> 33
 nnnnncgagu gaggucurnn nnnnnnnnnn nnyg 34

<210> 34
 <211> 27
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Target Molecule

<400> 34
 cggguccuuu cuuggauaaa cccgcuc 27

<210> 35
 <211> 47
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic Sensor Molecule

<220>
 <221> misc_feature
 <222> (37)..(38)
 <223> 2'-O-Methyl

<400> 35
 gagcgguuu auccaagaaa ggaccuuuuc gagugagguc ugacggc 47

<210> 36
 <211> 12
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic Reporter Molecule

<400> 36
gccgucguug ga 12

<210> 37
<211> 21
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Target Sequence

<400> 37
gguccuuucu uggauaaacc c 21

<210> 38
<211> 12
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Reporter Molecule

<400> 38
gccgucguua uu 12

<210> 39
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Sensor Molecule

<400> 39
gggcttatcc aagaaaggac c 21

<210> 40
<211> 37
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Erk Modulated Sensor Molecule

<400> 40
gcgugaccug augaggccga aaggccgaaa cguuccc 37

<210> 41
<211> 41
<212> RNA


```

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Erk Modulated Sensor Component

<400> 41
ggauaaggag gauuuccgaa agcggcuacg guccgccauc c 41

<210> 42
<211> 74
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Erk Modulated Sensor Molecule

<400> 42
gcgugaccug augagucacg cuaaggagga uuuccgaaag cggcuacggg ccgccagugu 60
uacgaaacgu uccc 74

<210> 43
<211> 38
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Half-Zinzyme

<220>
<221> misc_feature
<222> (1)..(4)
<223> 2'-O-Methyl

<220>
<221> misc_feature
<222> (6)..(11)
<223> 2'-O-Methyl

<220>
<221> misc_feature
<222> (14)..(14)
<223> 2'-O-Methyl

<220>
<221> misc_feature
<222> (16)..(27)
<223> 2'-O-Methyl

<220>
<221> misc_feature
<222> (31)..(38)
<223> 2'-O-Methyl

<400> 43
uuaucgagug aggucugacg gcgccgucgc aagaaagg 38

```

<210> 44
 <211> 17
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Target Signaling Molecule

<400> 44
 gguccuuucu uggauaa 17

<210> 45
 <211> 17
 <212> RNA
 <213> Hepatitis C Virus

<400> 45
 ccuuucuugg auaaaug 17

<210> 46
 <211> 112
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Sensor Ligase Molecule

<400> 46
 aaaccagucg gaacacuaua cgacugguac cguaaaagac aaaugugccc ucagagcaag 60

gaccgaucuu cggauccagg ggaggcacc cccgguggcu uuaacgcca cg 112

<210> 47
 <211> 17
 <212> RNA
 <213> Hepatitis C Virus

<400> 47
 gguccuuucu uggauaa 17

<210> 48
 <211> 366
 <212> RNA
 <213> Hepatitis C Virus

<400> 48
 gccagcccc gauugggggc gacacuccac cauagaucac ucccuguga ggaacuacug 60

ucuucacgca gaaagcgucu agccauggcg uuaguaugag ugucgucag ccuccaggac 120

cccccucucc gggagagcca uaguggucug cggaaccggu gaguacaccg gaauugccag 180
 gacgaccggg uccuuucuug gaucaaccg cucaaugccu ggagauuugg gcgugcccc 240
 gcgagacugc uagccgagua guguuggguc gcgaaaggcc uugugguacu gccugauagg 300
 gugcuugcga gugccccggg aggucucgua gaccgugcac caugagcacg aauccuaaac 360
 cucaaa 366

<210> 49
 <211> 12
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Generic Target Sequence

<220>
 <221> misc_feature
 <222> (1)..(5)
 <223> n stands for any nucleotide

<220>
 <221> misc_feature
 <222> (9)..(12)
 <223> n stands for any nucleotide

<400> 49
 nnnnnygynn nn 12

<210> 50
 <211> 37
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Halfzyme

<220>
 <221> misc_feature
 <222> (1)..(4)
 <223> 2'-O-methyl

<220>
 <221> misc_feature
 <222> (5)..(5)
 <223> 2'-deoxy-2'-amino

<220>
 <221> misc_feature
 <222> (6)..(11)
 <223> 2'-O-methyl

<220>

```

<221> misc_feature
<222> (14)..(24)
<223> 2'-O-methyl

<220>
<221> misc_feature
<222> (15)..(15)
<223> 2'-deoxy-2'-amino

<220>
<221> misc_feature
<222> (16)..(22)
<223> 2'-O-methyl

<220>
<221> misc_feature
<222> (23)..(23)
<223> n stands for hexaethylene glycol linker

<220>
<221> misc_feature
<222> (24)..(29)
<223> 2'-O-methyl

<220>
<221> misc_feature
<222> (31)..(37)
<223> 2'-O-methyl

<400> 50
agcgcgagug aggcugacg gcngccgucg cgacggg 37

<210> 51
<211> 12
<212> DNA
<213> Hepatitis B Virus

<400> 51
cccgtcggcg ct 12

<210> 52
<211> 12
<212> DNA
<213> Hepatitis B Virus

<400> 52
cccgtcgacg ct 12

<210> 53
<211> 12
<212> DNA
<213> Hepatitis B Virus

<400> 53

```

```

cccgtcgctcg ct 12

<210> 54
<211> 12
<212> DNA
<213> Hepatitis B Virus

<400> 54
cccgtcgccg ct 12

<210> 55
<211> 12
<212> DNA
<213> Hepatitis B Virus

<400> 55
cccgtcagcg ct 12

<210> 56
<211> 12
<212> DNA
<213> Hepatitis B Virus

<400> 56
cccgctctgcg ct 12

<210> 57
<211> 12
<212> DNA
<213> Hepatitis B Virus

<400> 57
cccgtcgcgct ct 12

<210> 58
<211> 12
<212> RNA
<213> Hepatitis B Virus

<400> 58
cccgucggcg cu 12

<210> 59
<211> 15
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Nucleic Acid Reporter Molecule

<220>

```

<221> misc_feature
 <222> (1)..(6)
 <223> 2'-O-methyl

<220>
 <221> misc_feature
 <222> (10)..(15)
 <223> 2'-O-methyl

<400> 59
 ggaacgucgu cacgc

15

<210> 60
 <211> 13
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Nucleic Acid Reporter Molecule

<220>
 <221> misc_feature
 <222> (1)..(5)
 <223> 2'-O-methyl

<220>
 <221> misc_feature
 <222> (8)..(13)
 <223> 2'-O-methyl

<400> 60
 ugagcugcac ugc

13

<210> 61
 <211> 75
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Nucleic Acid Sensor Molecule

<400> 61
 ggcgugaccu gaugagucac gcuaaggagg auuuccgaaa gcggcuacgg uccgccagug
 uuacgaaacg uuccc

60

75

<210> 62
 <211> 15
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Nucleic Acid Reporter Molecule

<400> 62
ggaacgucgu cacgc

15

<210> 63
<211> 95
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Nucleic Acid Sensor Molecule

<400> 63
ggcgugaccu gaugagucac gcagacgcu gcgaauggu uccucgaaag gggaaagcuu 60
uauuaagaaa ccaaaaugug uuacgaaacg uuccc 95

Sequence of the